BOARD OF SELECTMEN MEETING

DEDHAM SQUARE IMPROVEMENT PROJECT

SEPTEMBER 22, 2011

Outstanding Design Issues

- Crosswalk Materials
- Audible Pedestrian Signals
- Parking Issues
- Working Hours

Crosswalk Materials

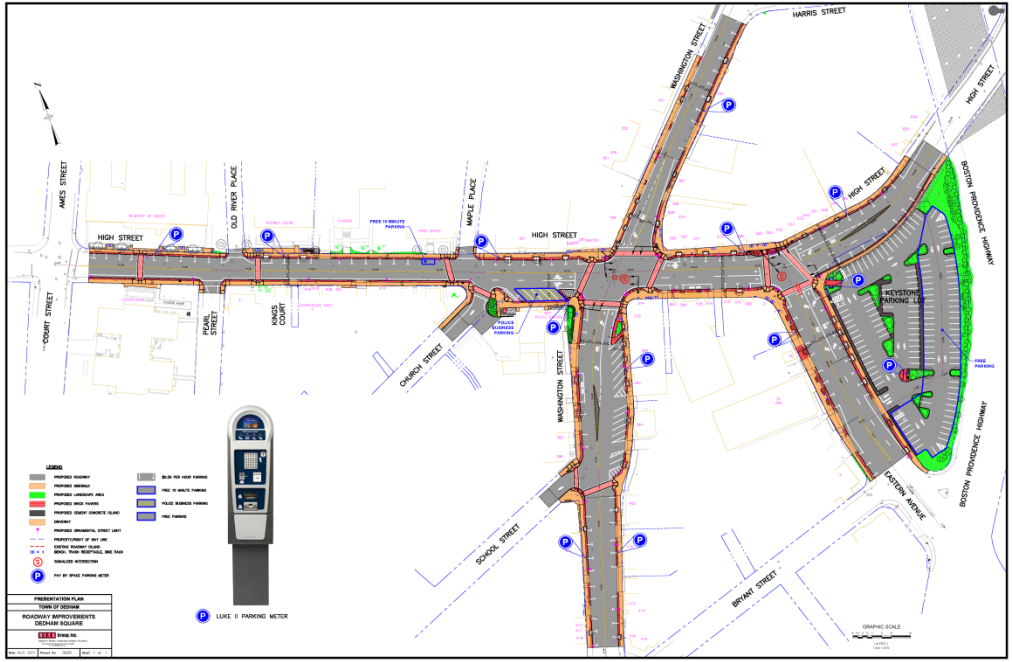
Recommended Crosswalk

Recommended Brick Banding

Audible Pedestrian Signals

- Provide audible pedestrian signal at push button
- Locator tone active at all times
- Walk indication only when push button pressed

Metered Parking



- Confirm extents of metered parking
- Confirm
  - Police Parking
  - Free parking in Keystone
  - 10 minute free parking at Post Office
  - Other

Parking Meter

- Confirm meter type
  - Pay by Space
- Proposed Meter
  - Luke II by Digital Payment Technologies

Working Hours

- Typical Working Hours
  - Daytime – 7AM to 5 PM
  - Nighttime – 8 PM to 6 AM
  - Evening – 1 PM to 11 PM
  - Recommended to allow contractor a 10 hour construction window
    - Contractor has ability to set working hours within window
      - Example – (4) 10 hour days or (5) 8 hour days

Working Hours Potential Impacts

- Project Cost
- Project Duration
- Traffic
- Businesses/Courts
- Residents

Project Duration

Day (7AM – 5PM)	Night (8PM – 6AM)	Evening (1PM – 11PM)
No Impact	Shorter Duration	No Impact
Baseline Duration	Studies show increased productivity (20 to 25%) at night due to lower traffic volumes	Same as Day
Estimated 14 months of active construction	Potential for 11 months of active construction	Estimated 14 months of active construction

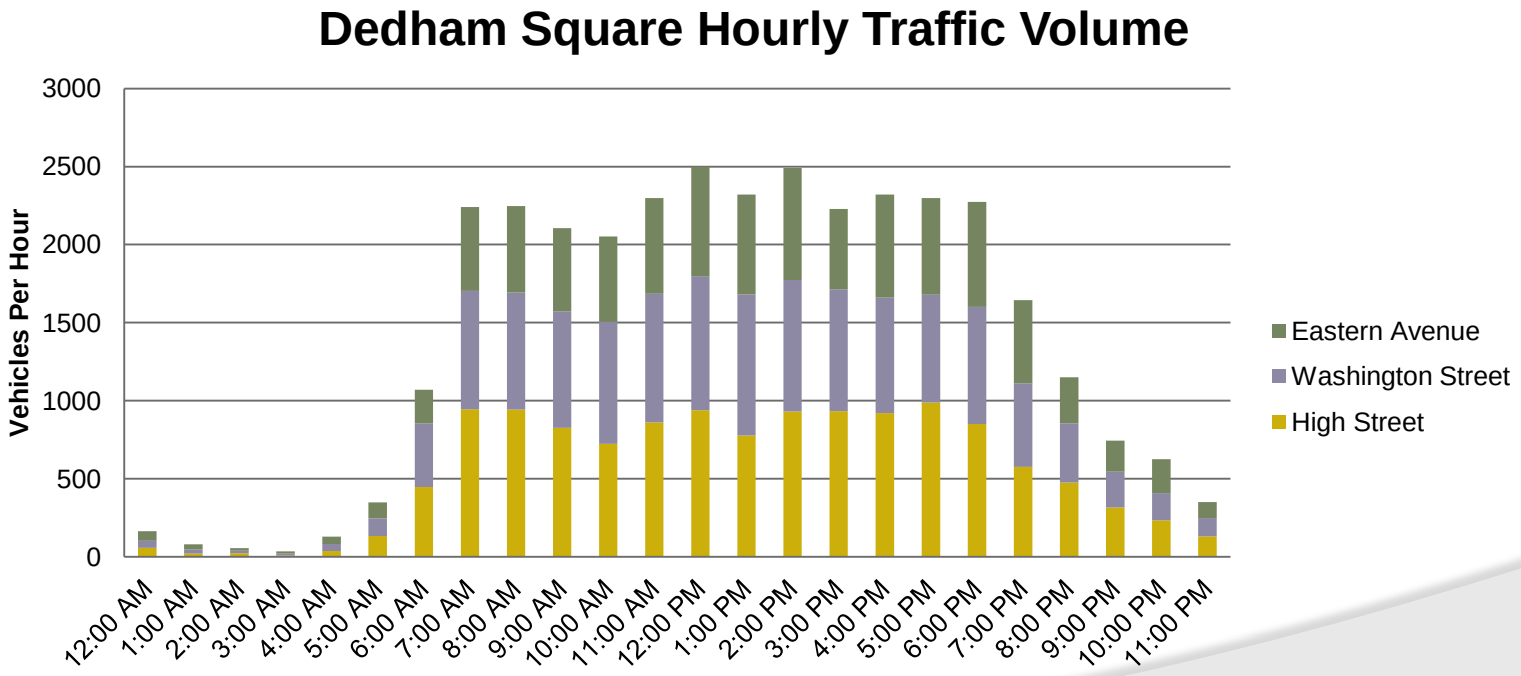
Project Cost

Day (7AM – 5PM)	Night (8PM – 6AM)	Evening (1PM – 11PM)
No Impact	No Impact	Higher Cost
Baseline Cost	Higher labor and material costs may be offset by higher productivity due to less traffic	Higher labor and material costs without the benefit of less traffic and higher productivity

Traffic

Day (7AM – 5PM)	Night (8PM – 6AM)	Evening (1PM – 11PM)
Higher Impact	Lower Impact	High Impact
Day construction would cause extensive traffic delays. 68% (23,000 vehicles) of daily traffic travels through the square during these hours.	Only 11% (3,700 vehicles) of daily traffic travels through the square during these hours.	Evening construction would cause extensive traffic delays. 54% (18,000 vehicles) of daily traffic travels through the square during these hours.

Traffic


Dedham Square Hourly Traffic Volume
Vehicles Per Hour
3000
2500
2000
1500
1000
500
0
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
Eastern Avenue
Washington Street
High Street

Businesses/Courts

Day (7AM – 5PM)	Night (8PM – 6AM)	Evening (1PM – 11PM)
Higher Impact	Lower Impact	High Impact
Day construction would cause extensive traffic delays and parking disruptions. Businesses would be directly impacted by construction activities.	Night construction would cause minimal impacts to some businesses with evening hours only.	Evening construction would cause extensive traffic delays and parking disruptions. Businesses with afternoon and evening hours would be impacted the most.

Residents

Day (7AM – 5PM)	Night (8PM – 6AM)	Evening (1PM – 11PM)
Lower Impact	Highest Impact	Lower Impact
Day construction would cause extensive traffic delays and parking disruptions, but construction noise would have the least impact during these hours.	Construction noise would have the greatest impact during these hours.	Evening construction would cause extensive traffic delays and parking disruptions, but construction noise would have a lower impact during these hours.

Residents

- Potential Night Mitigation Measures
  - Require self adjusting/manual adjusting backup alarms on equipment (lower dB)
  - Allow work that will not significantly impact traffic or parking to be done during the day
  - Allow Keystone Lot improvements to be done during the day
  - Place limits on the amount of night work allowed
  - Provide early completion bonus to encourage contractor to shorten duration
  - Advance road repairs to minimize potholes
  - Limit jackhammering operations during nighttime operations
  - Active police presence
  - Regular project management presence

Night Work Considerations

- Study showed that
  - Where night work was performed the average project included between 5% and 100% night work
  - The average project included 50% night work
  - Longer projects (3 years) tended to include 25% night work
  - Shorter Projects (1 month) tended to include 80% night work
    - “An Evaluation of the Important Variables in Nighttime Construction”, Department of Civil Engineering, University of Washington.

Night Work Considerations

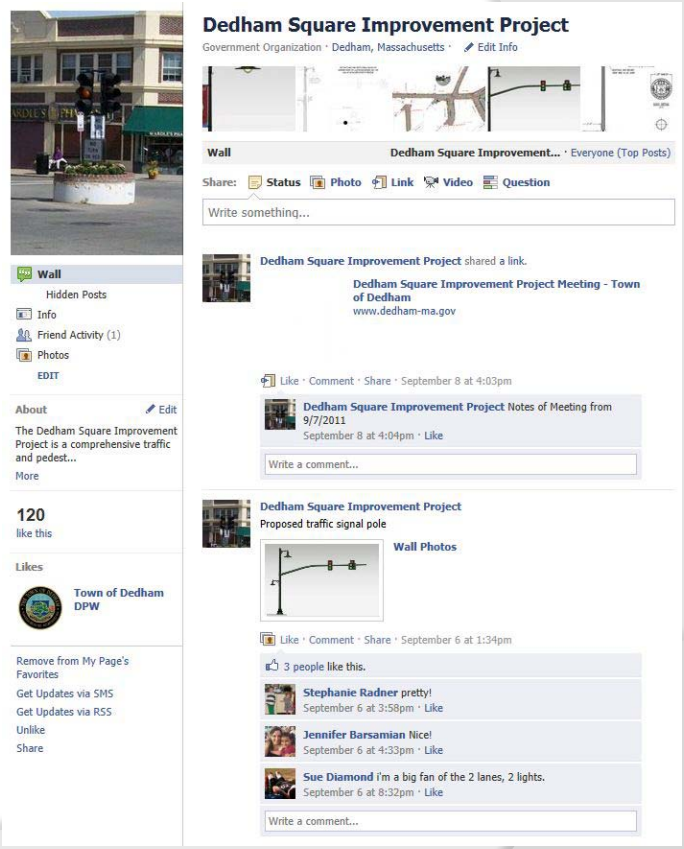
- If night work is desired/permitted
  - Encourage contractor to perform activities which will not cause significant traffic congestion (i.e. no lane closures) or cause significant business disruptions (i.e. displace more than 10 on-street parking spaces) during the day

Working Hours Conclusion

- Set parameters that the contractor must follow
- Encourage contractor to perform work in the most efficient manner within the contract parameters
- Avoid imposing conditions which will unnecessarily impact efficiency and cost
- Partner with contractor so they understand the potential impacts and concerns of all groups

Communications

- Email Updates
- Webpage Updates
- Facebook
- Twitter
- Variable Message Boards



Project Management

- Partnering Session with Contractor for residents and business owners
- Town will manage the project
- Dedicated field office
- Full time resident engineer
- Input Welcome

Parking Meter Comparison

Parking Meter - Installed